



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/010,169

11/13/2001

Richard L. Segar

169.12-0502

7782

36733

7590

09/06/2006

SEAGATE TECHNOLOGY LLC
INTELLECTUAL PROPERTY DEPT./ MAIL STOP NRW-097
7801 COMPUTER AVENUE SOUTH
BLOOMINGTON, MN 55435

EXAMINER

MILLER, BRIAN E

ART UNIT

PAPER NUMBER

2627

DATE MAILED: 09/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/010,169	Applicant(s) SEGAR ET AL.	
	Examiner Brian E. Miller	Art Unit 2627	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 June 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 43-57 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 43-57 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|--|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input checked="" type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Claims 43-57 are now pending.

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejections - 35 USC § 102

2. Claims 43, 47, 52 are rejected under 35 U.S.C. 102(b) as being anticipated by Ainslie et al. (US 4,761,699). (As per claims 43 & 52) Ainslie et al discloses an actuation assembly, as shown in at least FIGs. 4-7, including: a gimbal 12; a slider 16; a slider bond pad for electrically connecting the slider 16 to a trace layer 47, the slider bond pad having two layers 41/84; a ball bond 82, positioned on the trace layer 47 for connecting the slider bond pad to the trace layer; a notch (or indentation) (unnumbered-though clearly shown in FIGs. 4 & 5) located below the slider bond pad and on an edge 26 of the slider, wherein the edge is adjacent the gimbal 16; wherein the notch and the slider bond pad are considered to “provide compensation for potential misalignment between the slider and the trace layer,” since this intended use language is not considered to encompass any claimed structural difference over Ainslie et al.

(As per claim 47) Ainslie et al is further considered to comprise a “pad extension” 41 adjacent the front side and a pad 84 adjacent the pad extension, and a “ball bond” 82 for electrically connecting the pad to the flex on suspension bond pad.

Claim Rejections - 35 USC § 103

3. Claims 44-46, 55-57 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ainslie et al. For a description of Ainslie et al, see the rejection, supra.

As per claims 44-46, with respect to the dimensional parameters of the notch/bond pad, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have provided such dimensions in the course of routine engineering optimization/experimentation. Moreover, absent a showing of criticality, i.e., unobvious or unexpected results, the relationships set forth in these claims is considered to be within the level of ordinary skill in the art. Additionally, the law is replete with cases in which the mere difference between the claimed invention and the prior art is some range, variable or other dimensional limitation within the claims, patentability cannot be found.

It furthermore has been held in such a situation, the applicant must show that the particular range is critical, generally by showing that the claimed range achieves unexpected results relative to the prior art range(s); see *In re Woodruff*, 919 F.2d 1575, 1578, 16 USPQ2d 1934, 1936 (Fed. Cir. 1990).

Moreover, the instant disclosure does not set forth evidence ascribing unexpected results due to the claimed dimensions; see *Gardner v. TEC Systems, Inc.*, 725 F.2d 1338 (Fed. Cir. 1984), which held that the dimensional limitations failed to point out a feature which performed and operated any differently from the prior art. With respect to claims 55-57, as they have similar dimensional limitations as to claims 44-46, they are rejected under the same basis.

Art Unit: 2627

4. Claims 48-51, 53-54 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ainslie et al in view of Pihl (US 3,573,812).

With respect to claim 48-49 & 53-54, Ainslie et al remains silent as to the first layer (pad extension) 41 comprises nickel iron and the second layer (bond pad) comprises gold.

Pihl discloses an electrically conductive contact pad 82, which includes a nickel-iron alloy and a coating of gold. From this teaching of Pihl, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have provided the Ni-Fe/gold laminate as taught by Pihl, onto the bonding pad/termination pad 41/84 of Ainslie et al. The motivation would have been: lacking any unobvious or unexpected results, as NiFe and gold are known to be a very good conductor(s) and contain corrosion-resistant properties, substituting one good conductor for another would have been readily realized by a skilled artisan.

Further, with respect to claim 50, Ainslie shows a load beam 40 connected to the trace layer 43 (see also col. 8, lines 13-17), while the thickness of the slider bond pad being “about 15 microns” is considered obvious, as set forth in paragraph 11, supra.

Response to Amendment

5. Applicant's arguments filed 6/20/06 have been considered but are not persuasive.

A...Applicants' main assertion with respect to all the independent claims 43, 47 & 52) that “Ainslie et al fail to teach or suggest a slider bond pad for electrically connecting the slider to a trace layer, the slider bond pad having at least two layers, and a ball bond for connecting the slider bond pad to the gimbal.”

Art Unit: 2627

In response, the Examiner respectfully disagrees. The Examiner has interpreted elements 41 & 84 (FIG. 5) to encompass the recited “two layers” and further element 82 is the required “ball bond for connecting the slider bond pad to the trace layer”, as required by the claims. It is the Examiner’s position that the recited “two layers and ball bond” do not obviate the rejection as interpreted by the Examiner.

B...Applicants’ comments with respect to the dependent claims 44-46 & 55-57 rejected under section 103 over Ainslie et al, and claims 48-51 & 53, 54 rejected over Ainslie et al in view of Pihl fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references. Applicant's arguments do not comply with 37 CFR 1.111(c) either because they do not clearly point out the patentable novelty which he or she thinks the claims present in view of the state of the art disclosed by the references cited or the objections made. Further, they do not show how the amendments avoid such references or objections.

It is the Examiner’s position that these claim limitations do not overcome the prior art of record, as described in the respective rejections, supra.

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

Art Unit: 2627

MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian E. Miller whose telephone number is (571) 272-7578. The examiner can normally be reached on M-TH 6:30am-4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoa T. Nguyen can be reached on (571) 272-7579. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>.

Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Art Unit: 2627

If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

A handwritten signature in black ink, appearing to read "B. E. Miller", with a long horizontal flourish extending to the right.

Brian E. Miller
Primary Examiner
Art Unit 2627

BEM
September 1, 2006